The Effect of Ozore on the Ignition of Hydrocarbons. SOV/76-32-10-30/39

I. The Ignition of Butane With Oxygen

Card 4/4

KAMENETSKAYA S.A

24(8)

p.3

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Kinetika i rasprostranemiye plameni; sbornik dokladov na obshchemoskovskom seminare po goreniyu pri energeticheskom institute AN SSSR (Kinetics and Propagation of Flame; Collection of Reports at the All-Moscow Seminar on Combustion) Moscow, Izd-vo AN SSSR, 1959. 51 p. Errata slip inserted. 2,500 copies printed.

Ed.: L. N. Khitrin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A. G. Prudnikov; Tech. Ed.: O. M. Gus'kova; Seminar Council: L. N. Khitrin, Corresponding Member, USSR Academy of Sciences (Chairman), G. F. Knorre, Doctor of Technical Sciences, Honored Worker in Science and Technology, Professor (Deputy Chairman); Ye. S. Shchetnikov, Doctor of Technical Sciences, Professor (Deputy Chairman); A. P. Vanichev, Doctor of Technical Sciences; V. V. Voyevodskiy, Corresponding Member, USSR Academy of Sciences; N. V. Golovanov, Candidate of Chemical Sciences; D. S. Zhuk, Candidate of Chemical Sciences; N. V. Inozemtsev, Doctor of Technical Sciences, Honored Worker in Science and Technical, Professor; B. V. Kantorovich, Doctor of Technical Sciences; S. M. Kogarko, Doctor of Chemical Sciences; B. P. Lebedev, Candidate of Technical Sciences; K. A. Nikitin, Candidate of Technical Sciences; A. S. Sokolik, Doctor of Chemical Sciences; and Ye. S. Golovina, Candidate of Technical Science (Scientific Cari 1/4

Kinetics and Propagation of Flame (Cont.)

507/2267

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Secretary).

PURPOSE: This book is intended for engineers and specialists in thermal power production, gas combustion, heat engineering and related fields.

COVERAGE: The collection contains three articles which deal with the combustion reaction rate and flame velocity in gaseous mixtures and the influence of ozone on the kinetics of hydrocarbon combustion. References appear at the end of each article.

TABLE OF CONTENTS:

Tsukhanova, O. A. Calculation of Total Reaction Rate and Flame Velocity in Gasecus Mixtures

The author describes the combustion process with a system of differential equations of the conservation of mass, equations of momentum, energy, state and chemical kinetics. The article is subdivided as follows: Derivation of an approximation formula for normal flame velocity; Derivation of equations for calculating coefficients of total reaction rate; Calculation of total

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APPROVED FOR RELEASE: 08/10/2001

Kinetics and Propagation of Flame (Cont.)

SOV/2267

reaction kinetics for mixtures of carbon monoxide with oxygen and nitrogen; Comparison of experimental data with calculated values of the total reaction rate of carbon monoxide with oxygen; On the conformity of exact and approximate solutions. The following personalities are mentioned: N. N. Semenov, D. A. Frank-Kamanetskiy Ya.B. Zel'dovich G. A. Barskiy, A. V. Bendarenko, N. A. Karzhvin, N. A. Karzhvina, L. S. Sclov'yeva, G. I. Kozlov, I. S. Bruk.

Kamentskaya, S. A., N. A. Slavinskaya, and S. Ya. Pshezhetskiy. Influence of Ozone on the Combustion of Hydrocarbons

The author investigated the influence of ozone on critical conditions for the combustion of mixtures of some hydrocarbons with oxygen. Butane, Butylene and cyclohexane were investigated as it was possible to assume sustantial distinction in their primary interactions with ozone. The following personalities are mentioned: N. M. Chirkov, S. G. Entelis, A. B. Nalbandyan, B. Ya. Stern, N. A. Kleymanov, I. N. Antonova, A. M. Markevich.

Cherednichenko, V. M., I. N. Pospelova, and S. Ya. Pshezhetskiy, Influence of Ozone on the Burning Velocity of Hydrocarbons.

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Kinetics and Propagation of Flame (Cont.)

SOV/2267

The influence of ozone on the burning velocity of butane was investigated at atmospheric pressure in air mixtures, and in oxygen mixtures at a pressure of 10 mm Hg.

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IMS/mg

PSHEZHETSKIY, S.Ya.; KAMENETSKAYA, S.A.; GRIBOVA, Ye.I.; PANKRATOV, A.V.; MORO ZOV, N.M.; POSPRLOVA, I.N.; APIN, A.Ya.; SIRYATSKAYA, V.N.; SIAYINSKAYA, N.A.; CHEREDNICHENKO, V.M.

Kinetics of the decomposition and explosion of ozone.

Probl.fis.khim. no.2:27-38 159. (MIRA 13:7)

1. Laboratoriya kinetiki gazovykh reaktsiy Nauchno-issledovatel skogo fiziko-khimicheskogo instituta im. L.Ya.Karpova.

(Ozone) (Explosions)

The collection is the second issue of the Transactions of the Scientific Research Institute of Physical Chemistry im. L. Ya. Karpov.

5(4), 4(6)AUTHORS:

SOV/76-33-1-8/45 Slavinskaya, N. A., Kamenetskaya, S. A., Pshezhetskiy, S. Ya.

TITLE:

The Effect of Ozone on the Ignition of Hydrocarbons (Vliyaniye ozona na vosplameneniye uglevodorodov) II. Ignition of Butylene

With Oxygen (II. Vosplameneniye butilena s kislorodom)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 45-49 (USSR)

ABSTRACT:

The effect of ozone (I) on the location of the ignition point and induction period of the ignition of a butylene (II)oxygen (III) mixture was investigated and compared with the data regarding butane (Ref 1). (II) was obtained by the dehydration of n-butanol on aluminum oxide at 280-300°C, (I) and (III) as described in reference 1. Investgations were carried out with gas mixtures containing 80% (III) (from the stoichiometric amount) in a heatable vessel. The ignition point of (II) fa somewhat lower than that of butane; the same applies to the induction period of the ignition. The data (Fig 2) were calculated from an equation found by N. N. Semenov. The values E = 42.2 kcal or 44 kcal were obtained for the activation energy. The effect of ozone is much stronger upon the ignition

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of (II) than upon that of butane. At a content of 2.5% (I) the

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SCV/76-33-1-8/45

The Effect of Ozone on the Ignition of Hydrocarbons. II. Ignition of Butylens With Oxygen

activation energy decreases to E=8.85 kcal. This difference in the effect of (I) is explained by the primary reaction of (I) or of the atomic (III) with hydrocarbon at the double bonds, but not by the heat emission in the decomposition $0_3 - 1.5 \ 0_2$. The dependence of the temperature on the pressure

which was observed near the ignition point agrees with the theory of heat ignition. There are 6 figures, 1 table, and

2 references, 1 of which is Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova, Moskva

(Physico-Chemical Institute imeni L. Ya. Karpov, Moscow)

SUBMITTED: May 31, 1957

Card 2/2

5(4), 11(2) AUTHORS: sov/76-33-2-5/45

Slavinskaya, N. A., Kamenetskaya, S. A.,

Pshezhetskiy, S. Ya.

TITLE:

The Effect of Ozone on the Ignition of Hydrocarbons (Vliyaniye ozona na vosplameneniye uglevodorodov). III. The Ignition of Cyclohexane With Oxygen (III. Vosplameneniye

tsiklogeksana s kislorodom)

PERIODICAL:

Zhurnal fizicheskov khimii, 1959, Vol 33, Nr 2,

pp 271 - 275 (USSR)

ARSTRACT:

In continuing investigations previously reported (Refs 1,2) the primary reaction of ozone with cyclic hydrocarbons in the ignition of the latter was tested. The scheme used in the tests as well as the method for producing the ozone and oxygen has already been reported (Ref 1). A gas mixture was used which contained only 80% of the stoichiometric amount of oxygen. It was found that an addition of ozone lowered the ignition temperature (Fig 4) and the pressure threshold for ignition (Fig 5), while the induction period for ignition was avoided. Calculations for a gas mixture with 13.2% ozone show (Table 2) that the activation energy

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The Effect of Ozone on the Ignition of Hydrocarbons. III. The Ignition of Cyclohexane With Oxygen

SOV/76-33-2-5/45

lowered by the ozone from 43 kcal to 9.2 kcal. The effect of the ozone on the ignition of cyclohexane is similar to its effect on the ignition of butane, but less than in the case of the butylene ignition. The former is due to a similar primary reaction of butane and cyclohexane with ozone. The results obtained are in accord with the theory of heat ignition of N. N. Semenov and agree with the data obtained by N. A. Kleymenov, I. N. Antonova, A. M. Markevich, and A. B. Nalbandyan (Ref 3). There are 6 figures, 2 tables and 3 Soviet references.

ASSOCIATION:

Akademiya nauk SSSR, Fiziko-khimicheskiy institut im. L. Ya. Karpova (Academy of Sciences, USSR, Physical-Chemical Institute imeni L. Ya. Karpov, Moscow)

SUBMITTED:

May 31, 1957

Card 2/2

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5(4) AUTHORS:

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Pshezhetskiy, S. Ya., Morozov, N. M., Kamenetskaya, S. A., Sir-

yatskaya, V. N., Gribova, Ye. I.

TITLE:

Kinetics of the Thermal Decomposition of Ozone

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10,

pp 2306 - 2315 (USSR)

ABSTRACT:

According to A. V. Pankratov and S. Ya. Pshezhetskiy (Ref 1), the quantum yield of photochemical ozone decomposition in liquid phase attains a value of 20. Investigations of the kinetics of thermal ozone decomposition have not fully explained this problem. Thus, values of 23-31 kcal were given for the activation energy in various publications. Further investigations of this problem were made by L.S. Kassel' (Ref 2), Benson, and Axworthy (Ref 3). In this article, the authors measured the reaction kinetics of thermal ozone decomposition at small, medium, and high ozone concentrations and various reaction surfaces be within a wide temperature range. Experiments were made under static and dynamic conditions (at low concentration). The decomposition rate of ozone was determined at a pressure of 30-760 mm Hg and various initial ozone-hydrogen ratios within

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Kinetics of the Thermal Decomposition of Ozone

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the temperature range 70-170°. The results of some typical experiments are listed (Tables 1-3). The velocity constant of decomposition, calculated according to the equation of second order, varies in dependence on the ratio $0_2:0_3$ as well as the

"actual" activation energy which rises from 18 (95-97% 02) up to 27 kcal (2-3% 0x). At very high and low ozone concentrations, the equation of second order holds with sufficient approximation. Extension of the reaction surface by 4.7 times does not change the reaction rate (Table 4). The factor before the exponent also varies with the composition of the gas mixture (Table 5). In concentrated mixtures, it is smaller by 10-102 than the number of double collisions, and 102-104 times greater than the latter in dilute mixtures. An equation for the reaction rate was set up by the method of constant concentration which was suggested by Schumacher and Glissmann (Ref 10). The factors before the exponents and the activation energies were calculated for the four elementary reactions of the process (Table 6). The decomposition of ozone at the surface seems to be heterogeneous and of first order as confirmed by data by Markevich (Refs 6,7). There are 3 figures, 6 tables, and 24 references, 8 of which are Soviet.

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Kinetics of the Thermal Decomposition of Ozone 50V/76-33-10-31/45

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova, Moskva (Physicochemical Institute imeni L. Ya. Karpov, Moscow)

SUBMITTED: March 31, 1958

Card 3/3

sov/76-33-10-33/45

5(4) AUTHORS:

Blavinskaya, N. A., Kamenetskaya, S. A.

TITLE:

The Effect of Ozone on the Critical Conditions of the Ignition Resulting From Contact Between Ethanol and Oxygen

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10,

pp 2325 - 2330 (USSR)

ABSTRACT:

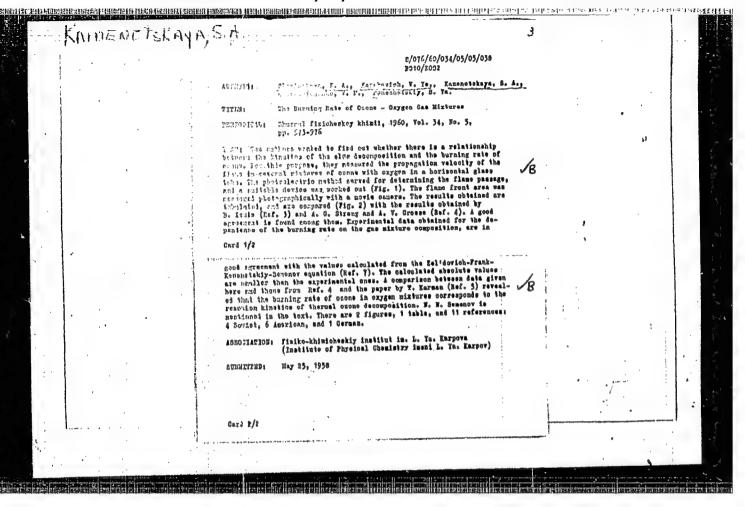
The authors investigated the influence exerted by ozone upon the limit and induction period of alcohol ignition by oxygen in a heated vessel. Results were compared with those yielded by hydrocarbons, and the authors attempted to explain the function of the OH-group. The experimental method has already been described (Ref 2). Besides, the ethanol-oxygen mixture was studied, and it was found that the dependence of the critical pressure of ignition of the mixture upon temperature follows the approximation equation (2) of the heat theory of ignition by N. N. Semenov (Ref 5) (this holds also for butane, butylene, and cyclohexane). The induction period of ignition lasts 1-4 sec, and is thus shorter than that of hydrocarbons; furthermore, it follows also the approximation equation (3) by N. N. Semenov. The resultant data are in good agreement with the constant of equa-

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The Effect of Ozone on the Critical Conditions of the SOV/76-33-10-33/45
Ignition Resulting From Contact Between Ethanol and Oxygen

tion (3) (Table 1). The activation energy resulting from contact between ethanol and oxygen amounts to 62 kcal; hence, it exceeds considerably that resulting from reactions of hydrocarbons with oxygen (44 kcal approximately), which is ascribed to the greater strength of the C-H bond in ethane (as compared with the hydrocarbons of the paraffin series). Data by N. M. Chirkov, S. G. Entelis (Ref 7), Ye. A. Andreyev (Ref 8), H. A. Taylor (Ref 9), and A. V. Zagulin (Ref 10) indicate that the activation energy of ethane amounts to 55-68 kcal. The influence exercised by ozone upon the ignition resulting from the reaction of ethanol with oxygen was investigated by partial substitution of ozone for oxygen. For this purpose, the authors used mixtures with 3-15% by volume of ozone. Temperature, pressure, and induction period of ethanol ignition are greatly reduced by ozone. The actual activation energy is also reduced by it (Table 2), which further explains its effect (as in the case of hydrocarbons). Ozone has a stronger effect on the critical conditions of ethanol ignition than on those of cyclohexane and butane, it is, however, surpassed by the effect of butylene. In conclusion, the authors thank Professor S. Ya. Pshezhetskiy for valuable

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Slavinskaya, N. A., Kamenetskaya, S. A., Pshezhetskiy, S. Ya.,

Vasil'yev, L. A. (Moscow)

TITLE:

The Influence of <u>Ionizing Radiation</u> on the Kinetics of the

Oxidation and Ignition of Butane. I. Formal Kinetics

PERIODICAL:

Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6,

pp. 1169-1175

TEXT: The influence of fast electrons and of a static discharge on the formal kinetics of the chain reaction of butane oxidation with oxygen was examined. An electron accelerator was used, and the pressure in the reaction vessel was changed from 582 to 640 torr, and the temperature from 40 to 254°C. The strength of the discharge current was measured with an MBJ-2M %(MVL-2M) cathode voltmeter. It was established that irradiation with fast electrons accelerated the butane oxidation and decreased the induction period and the effective activating energy. The latter falls from 45 to 15 kcal/mole with an increase in the radiation intensity. The effect of radiation on the reaction kinetics is mainly due to the

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S/076/60/034/07/01/009 B015/B070

AUTHORS:

Gribova, Ye. I., Kamenetskaya, S. A., Pankratov, A. V., Apin, A. Ya., Pshezhetskiy, S. Ya.

TITLE:

The Critical Diameter and the Explosion Rate of Liquid

| Ozone Solutions

PERIODICAL:

Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 7,

pp. 1395-1401

TEXT: According to the theory of Yu. B. Khariton (Ref. 1) the critical diameter of an explosive is the minimum diameter of a cylindrical charge in which a stable detonation at a constant rate may occur. The critical diameter of the explosive is proportional to the duration of the reaction in the front of the explosive wave and this duration is inversely proportional to the reaction rate. In the present work the dependence of the critical diameter on the composition of the liquid ozone sample diluted with oxygen or carbon tetrafluoride is investigated. The experimental apparatus is shown schematically in Fig. 1. The explosion was started by lead azide in a suitable apparatus (Fig. 2), and for experiments with

Card 1/2

The Critical Diameter and the Explosion Rate of Liquid Ozone Solutions

S/076/60/034/07/01/009 B015/B070

oxygen - ozone mixtures the gaseous mixture was condensed in a receiver (Fig. 3). The measured values (Table 1, oxygen - ozone mixtures with 37-40% 03; Table 2, 47% 03; Table 3, 32-96% 03; Table 4, experiments in small brass tubes with heterogeneous mixtures; Table 5, CF₄-03 mixtures)

show that the explosion properties of ozone are determined principally by the character of the kinetics of decomposition, i.e., by the small activation energy and the large factor of the exponential function. The relation obtained between the critical diameter and the composition of the solutions agrees with the above-mentioned theory of the critical diameter of stable detonations. Measurements on the rate of explosion of an ozone oxygen mixture with 96% ozone (Table 6) showed that the rate of detonation is not proportional to the ozone concentration. A. F. Belyayev is mentioned in the text. There are 5 figures, 6 tables, and 6 Soviet references.

ASSOCIATION:

Fiziko-khimioheskiy in-t im. L. Ya. Karpova

(Physicochemical Institute imeni L. Ya. Karpov)

SUBMITTED:

February 22, 1958

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AUTHORS:

Slavinskaya, N. A., Zhitneva, G. P., Kamenetskaya, S. A., and

Pshezhetskiy, S. Ya.

TITLE:

Effect of ionizing radiation on the kinetics of butane oxida-

tion. II. Reaction mechanism

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 6, 1962, 1293 - 1298

TEXT: The first section of this report (I) (N. A. Slavinskaya, S. A. Kamenetskaya, S. Ya. Pshezhetskiy, L. A. Vasil'yev, Zh. fiz. khimii, 34, 1169, 1960) dealt with the formal kinetics of chain reactions in butane oxygen oxidation. This section describes studies of the oxidation mechanism of butane under fast electron irradiation with particular attention to its effect on the ramification of the reaction chain. The source was an electron accelerator with extracted beam of three intensities 25, 50, and 100 /a. The electron energy absorbed by the gas was determined from the decomposition of nitrogen oxide: 0.6 at 25 ma, 1.2 at 50 ma, and 2.4.10 15 ev/cm3 at 100 ma. The reaction rate was measured by the method des-Card 1/3

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Effect of ionizing ...

cribed in I. Besides the chromatographic determination of butane, also the products of its partial oxidation (peroxides and aldehydes) were also studied polarographically. Experimental conditions: initial pressure of the butane - air mixture - 613 mm Hg; temperature = 185 - 257 C. The temperature dependence of the reaction rate was recorded at two radiation intensities (1.2·10¹⁵ and 2.4·10¹¹ ev/cm³.sec). As in I, the main parameters of the reaction kinetics were determined from experimental curves, using the equations suggested by N. I. Semenov (O nekotorykh problemakh khimicheskoy kinetiki (Jome problems of chemical kinetics) Izd-vo AN SSSR, 1954) for ramified chain reactions. It was found that the effective activation energy E eff decreased and the number of initial active centers no and the ramification factor fincrease as radiation intensity rose. is consistent with the previously determined dependence of these parameters on the intensity of the electron beam. Accelerated accumulation of peroxides and aldehydes was found with rising intensity of the electron beam. Examination of their concentration as a function of this intensity showed that they accompose under the action of electrons. The amount of decomposing peroxides was proportional to the radiation intensity. The Card 2/3

Effect of ionizing ...

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decomposition of aldehydes is more complicated, and they are assumed to play a less significant part in chain ramification. Summary: The greater ramification of the chain at high radiation intensity cannot only be due to the formation of initial active centers, but also to the radiative decomposition which causes a degenerate ramification. Further research is needed for the problem of whether the decomposition of peroxides and aldehydes is due to direct absorption of radiation energy only, or whether the energy may be transferred their molecules by collision with ions or excited nitrogen molecules. The kinetic phenomena observed are assumed to be related to a figures.

ASSOCIATION:

Fiziko-khimicheskiy institut imeni L. Ya. Karpova, Moskva (Physicochemical Scientific Institute imeni L. Ya. Karpov, Moscow)

SUBMITTED:

September 13, 1960

Card 3/3

8/844/62/000/000/059/129 D204/D307

AUTHORS: Slavinskaya, N. A., Kamenetskaya, S. A., Pshezhetskiy, S. Ya. and Zhitneva, G. P.

TITLE: A study of the kinetics of the chain oxidation of butane in the vapor phase, under the action of fast electrons

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 353-356

TEXT: Kinetics of the aerial oxidation of gaseous butane were studied under steady irradiation with fast electrons (the energy absorbed by the gas ρ being 0.6, 1.2 or 2.4 x 10 16 eV/cm³.sec) at 613 - 640 mm Hg and between 185 and 257°C, to elucidate the mechanism of such reactions. The intermediate oxidation products were estimated polarographically, the unchanged butane chromatographically, and the reaction rate was followed by the increase in prescure, Δp . The log $\Delta p/$ time plots were linear in all cases, as predicted by the kinetic equations derived for branched-chain mechanical

Card 1/2

A study of the kinetics ...

S/844/62/000/000/059/129 D204/D307

nisms by N. N. Semenov. Both the initial number of active centers, no, and a parameter characterizing the extent of chain-branching increased linearly with increasing intensity of irradiation, whilst the effective activation energy was decreased. A mathematical treatment is presented, showing that the rates of oxidation of hydrocarbons under constant irradiation may be described by branched-chain kinetic equations, the actual parameters being a function of the irradiation intensity. The relative increase in no under the action

of irradiation was comparatively lower at higher temperatures. The effect of radiation on chain-branching is ascribed to the action of the irradiation on intermediate oxidation products (aldehydes and peroxides); these products were shown to decompose in proportion to the duration of irradiation. There are 5 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute im. L. Ya. Karpov)

Card 2/2

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menetskaya. S. A.:

AUTHOFS: Slavinskaya, N. A.; Gribova, Ye. I.; Demidova, G. G.; Kamenetskaya, S. A.; Prinezholskiy, S. '4.

TIPLE: Effect of theme on the kinetics of butane oxidation

SCURCE: Zhurnal fizici skoy khimii, v. 37, no. 7, 1963, 1549-1556

TOPIC TAGS: ozone, butune, oxygen

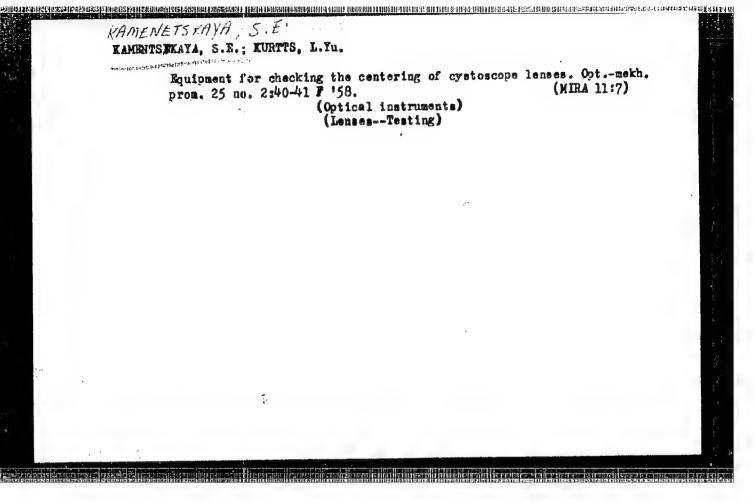
AMSTRACT: The effect of ozone on the kinetics of butane oxidation with oxygen has been investigated. In a previous experiment, an investigation was made of the effect of ozone on the critical ignition point of some hydrogenhous.

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MARGULIS, O.M. : KAMENETSKIY, A.B.

Using aluminum phosphate as bonding for refractory corundum products and mortars. Ogneupory 29 no.7:329-332 64. (MIRA 18:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.



GENIN, I.; BRUK, S.I., kand.geograf.nauk; KAMENETSKAYA, T.B., red.; CHIZHOV, N.N., red.

Iran. Scale 1:2500000. Moskva, Gos.isd-vo geogr.lit-ry, 1959. col.map fol. ___Genin, I. Iran. 31 p. (MIRA 13:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii.

(Iran--Maps)

KAMENETSKAYA, T.M.

Electrophoretic studies of blood serum in rheumatic patients receiving compound treatment; ultraviolet irradiation and salicylic preparations. Vop. kur., fizioter. i lech. fiz. (MIRA 15:1) kulit. 24 no.6:506-510 N-D 159.

1. Iz Nauchmo-issledovatel'skėgo instituta fizioterapii Ministerstva zdravookhraneniya RSFSR (dir. - chlen-korrespondent AMN SSSR prof. A.N. Obrosov)
(RHEUMATISM) (SERUM)

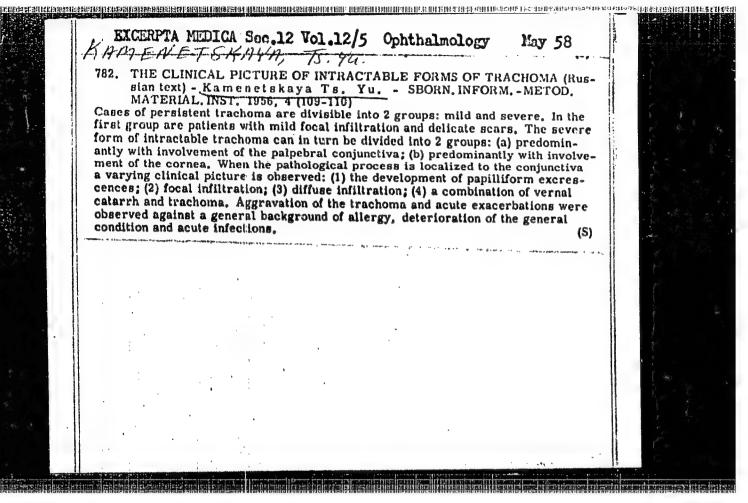
(ULTRAVIDLET RAYS_THERAPEUTIC USE) (SALICYLATES...THERAPEUTIC USE)

ELECTROPHORETIC INVESTIGATIONS OF BLOOD SERUM UNDER ACTION

OF ULTRAVIOLET IRRADIATION. (EXPERIMENTAL AND CLINICAL DATA)."

MOSCOW, 1961. (MIN OF HEALTH USSR. CENTRAL SCI RES INST OF HEALTH RESORT SCI AND PHYSIOTHERAPY). (KL-DV, 11-61, 228).

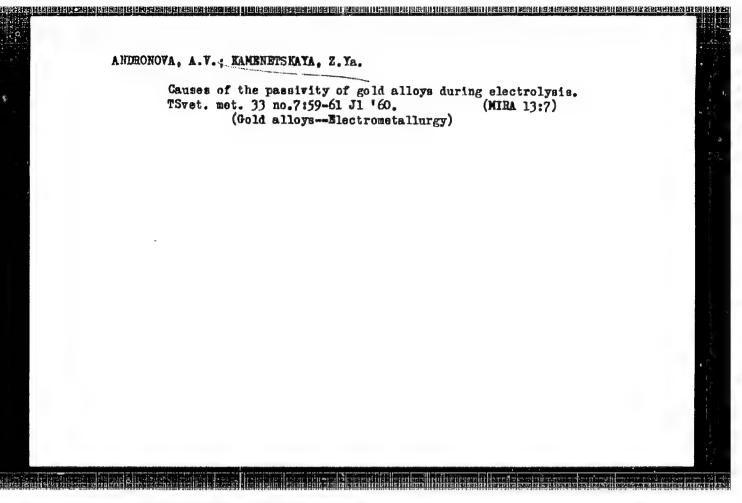
-254-



GORGIYEV, T.B.; KAMENETSKAYA, Ye.M.

Autovaccine treatment of chronic recurrent forunculosis. Vrach. delo no.10:147 0 '61. (MIRA 14:12)

1. Dnepropetrovskiy institut epidemiologii, mikrobiologii i gigiyeny i Dnepropetrovskoye 11-ye lechebno-poliklinicheskoye ob"yedineniye. (VACCINATION) (FURUNCLE)



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	1. Vneshtatnyy korrespondent ziwrzaja	"Greek hankaya walatriye".
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ACCESSION NR: AP3003205

5/0115/63/000/006/0021/0022.

AUTHOR: Margulis, O. M.; Usatikov, I. F.; Kamenetskiy, A. B.; Lakh, V. I. Stadny*k, B. I.

TITLE: Refractory insulation of thermo-electrodes used in measuring high temperatures

SOURCE: Izmeritel naya tekhnika, no. 6, 1963, 21-22

TOPIC TAGS: insulation, refractory insulation, high-temperature measurements, VR-5 alloy, VR-15 alloy, VR-20 alloy

ABSTRACT: As porcelain caps and beads slipped over thermocouples withstand only temperatures of up to 1,000-1,500C, other materials — MgO, Al₂O₃, and ZrO₂ — were used for developing refractory insulation for high-temperature thermocouples. Wires from tungsten-rhenium alloys containing 5% (VR-5), 15% (VR-15), and 20% (VR-20) rhenium were annealed at 1,400-1,650C in

Card 1/2

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ACCESSION NR: AP3003205

0.001-torr vacuum and in hydrogen. VR-5/20 and VR-15/20 thermocouples were made from these 0.34-mm wires. The MgO caps and beads were tested separately for five hours in argon at 2.400C; they also worked in induction furnaces at temperatures up to 2,000C without appreciable vaporization or volatilization; however, in 10⁻⁴ -torr vacuum at temperatures over 1,600C, a "considerable wear was observed." Orig. art. has: no figure, formula, or table.

ASSOCIATION: Ukrainskiy nauchno-issledovatel skiy institut ogneuporov (Ukrainian Scientific-Research Institute of Refractories)

SUBMITTED: 00

DATE ACQ: 22Jul63

ENCL: 00

SUB CODE: IE

NO REF SOV: 001

OTHER: 002

Card 2/2

ACCESSION NR: AP4015329

5/0131/64/000/001/0024/0028

AUTHORS: Margulis, O. M.; Usatikov, I. F.; Kamenetskiy, A. B.

TITLE: Refractory materials for the protection of thermoelectrodes used in hightemperature measurements

SOURCE: Ogneupory*, no. 1, 1964, 24-28

TOPIC TAGS: refractory material, zirconium dioxide, magnesium oxide, thermocouple protective jacket, VR 5/20 thermocouple, OPPIR-09 pyrometer, Tamman electrical oven, TVV-2M oven, high-temperature oven

ABSTRACT: A procedure for the production of thermocouple jackets is described. These jackets made of zirconium dioxide and magnesium oxide were up to 600 mm long and 22 mm in diameter. Despite the differences in their compositions, it has not been possible to determine which material is the more advantageous. The tests were carried out in a Tamman electrical oven, a TVV-2M oven, and in high-temperature ovens. It was established that thermocouple coverings described here should not be used under reducing conditions. Tests carried out at 1 x 10⁻³ mm Hg pressure under argon in a TVV-2M oven showed that the MgO jackets should not be used for

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ACCESSION NR: APhol5329

measuring temperatures in vacuum. When the thermocouples were placed near the water-cooled parts of the oven, their jackets were destroyed by the abrupt temperature differences. The MgO coverings can be used in taking measurements under argon at 24,000 for a period of 5 hours, while the ZrO2 jackets withstand a temperature of 24,000 for several minutes and may be used for extended periods at 19000 in vacuum, under nitrogen and under argon. The long coverings had to be attached to graphite supports to prevent their bending at high temperatures. Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractory Materials)

SUBMITTED: 00

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: ML

no ref sov: 003

OTHER: OOL

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s/0131/64/000/002/0063/0067

ACCESSION NR: APho13186

AUTHORS: Margulis, O. M.; Usatikov, I. F.; Kamenetskiy, A. B.

TITLE: Large items of high thermal stability made of zirconium dioxide

SOURCE: Ogneupory*, no. 2, 1964, 63-67

TOPIC TAGS: zirconium dioxide, thermal stability, refractory characteristic, refractory material, refractory shape effect, refractory size effect

ABSTRACT: It was previously established that the thermal stability of refractory materials made of zirconium dioxide increased if certain amounts of isometric and monoclinic ZrO₂ were maked and mixed together. The present work was carried out in order to determine the optimal quantities of the monoclinal part and the optimal grain sizes of both parts. The experiments showed that: 1) thermal stability of large items made of zirconium dioxide increased with the use of O to 60 A fraction of isometric ZrO₂; 2) the monoclinic zirconium (introduced in insignificant quantities) gave best results when its grain sizes were smaller than 2 A but even with 60 -A grains its thermal stability and the deformation temperature under load remained satisfactory; 3) 15% of coarse monoclinic zirconium gave the best results

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ACCESSION NR: APho13186

(the increase of its content from 15 to 25% lowered the strength of the material at room temperature); 4) thermal stability of large items made of zirconium dioxide was affected by the shape and the size of the item; 5) the introduction of the monclinic zirconium considerably increased the thermal stability of large items in comparison to those made only of isometric ZrO₂. Orig. art. has: 4 tables and 1 figure.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractories)

SUBMITTED: 00

DATE ACQ: 02Mar64

ENCL: 00

SUB CODE: ML

NO REF SOV: 005

OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000620230001-7"

ACCESSION NR: AP4042633

5/0131/64/000/007/0329/0332

AUTHOR: Margulis, O. M.; Kamenetskiy, A. B.

TITLE: Use of aluminum phosphate as a binder for refractory corundum products and cements

SOURCE: Ogneupory*, no. 7, 1964, 329-332

TOPIC TAGS: refractory material, aluminum phosphate, corundum, cement, binder, alumina bonding strength, shear strength, firing, phosphorus pentoxide, refractory cement

ABSTRACT: The possible use of aluminum phosphate as a binder for making corundum products, especially parts of thermocouples, and for cementing parts to graphite and to steel was investigated. An aluminophosphate bonding agent with Al203: P205=1:3.5, density 1.57 g/cc, was used. Storage in a closed vessel for a month did not affect this binder. The effect of particle size on the stability of the binder was measured with a photoelectric nephelometer. It was found that the filtrate of an aluminophosphate binder contained suspended particles with a size of 370-600 mu, most of them being 370-420 mu. An aluminophosphate binder (density 1.58 g/cc, viscosity 7.8 cp) mixed with finely ground alumina in a ratio of 1:1.3 cresulting density = 3.59 g/cc) was then used for cementing samples which were

ACCESSION NR: AP4042633

fired at 1600C. The tensile strength of the dried samples was 59.5 g/sq.cm.Shearstrength data showed that binders based on aluminophosphate cement, refractory corundum parts reliably to graphite even after a 15-hour firing in an electric furnace up to 2000C. The effect of an aluminophosphate; binder on the properties of corundum samples, using alumina mixed with 1% TiO2, was also studied and the compressive strength was determined at 300, 1200 and 1600C. Aluminophosphate binders were found to promote sintering, increase the strength after drying and heatresistance, and did not decrease the temperature of deformation. The increase in heat resistance is associated with a decrease in the thermal expansion coefficient and possibly with the presence of glassy films which absorb the stresses at sharply changing temperatures. Addition of 1% aluminum phosphate to the corundum mass improved sintering, thermal resistance and compressive strength, and decreased the coefficient of thermal expansion with the simultaneous retention of the main properties. The volatility of P205 does not affect the serviceability of the products and cements. "Microscopic studies were carried out by N. V. Gul'ko." Orig. art. has: 3 tables.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute for Refractory Materials)

SUBMITTED: 00

SUB CODE: MT

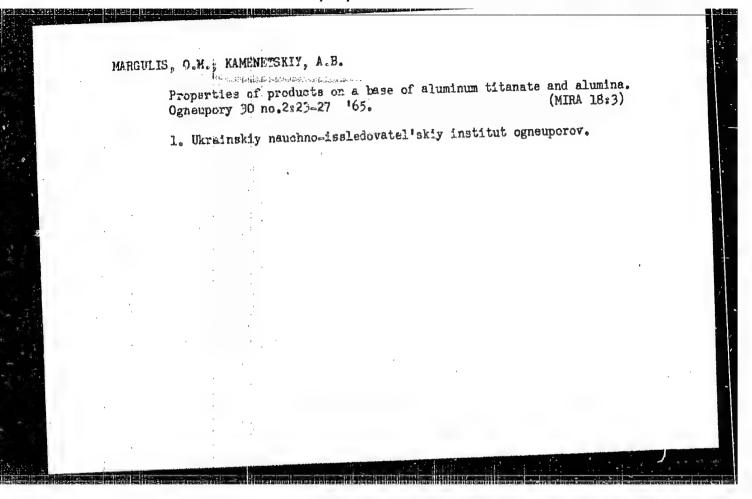
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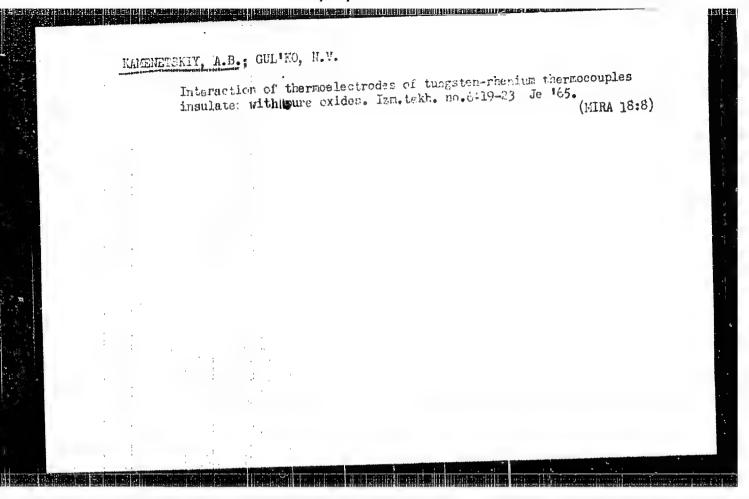
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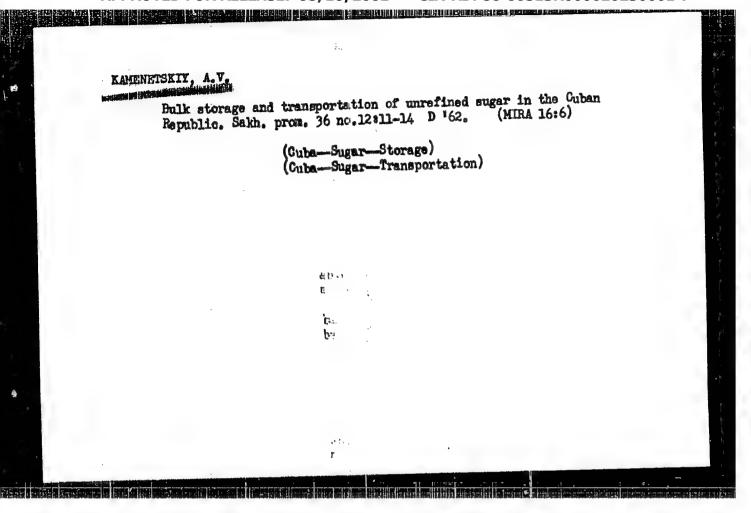
Card 2/2

L 2595-66 EWT(d)/EWT(1)/EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWP(1)/ACCESSION HR: AP5019197 EWP(v)/T/EWP(t)/EWP(k)/ UR/0115/65/ EMP(h)/EMP(b)/EMP(1)/ETC(m) JP(c) JD/WW/JG/ 536.532 AUTHOR: Kamenetskiy, A. B.; Gul'ko, N. V. Salestan Paratitional and the Beat Sales TITLE: Interaction between the electrodes in tungsten-rhenium thermocouples pure-oxide insulation SOURCE: Izmeritel'naya tekinika, no. 6, 1965, 19-23 TOPIC TAGS: thermocouple, tungsten rhenium thernocouple ABSTRACT: The results are reported of an experimental investigation of reactions between W. Mo and these oxides Algo, MgO, ZrOg, MgAlgO4, CaZrO3, and SrZrO3. Thin powders of 30% metal and 70% oxide compacted into tablets were heated to 1750-2350C and subsequently analyzed by microscopic, x-ray, and chemical methods. Also reactions between the same oxides and VP-5 and VP-10 tungsten-rhenium alloys at 1740--23000 were investigated. It is found that best available insulation for Mo, W, and W-Re electrodes is: (1)Al₂O₈ and MgAl₂O₄ for the ceramic-graphite-enclosed thermocouples operating in oxidizing media at temperatures up to 19500; (2) Beads made from MgO or the above zirconates in reducing CO/CO, atmospheres and temperatures up to 23000; (3) For operating in vacuum (0.013 n/m2), up to 19500, Card 1/2

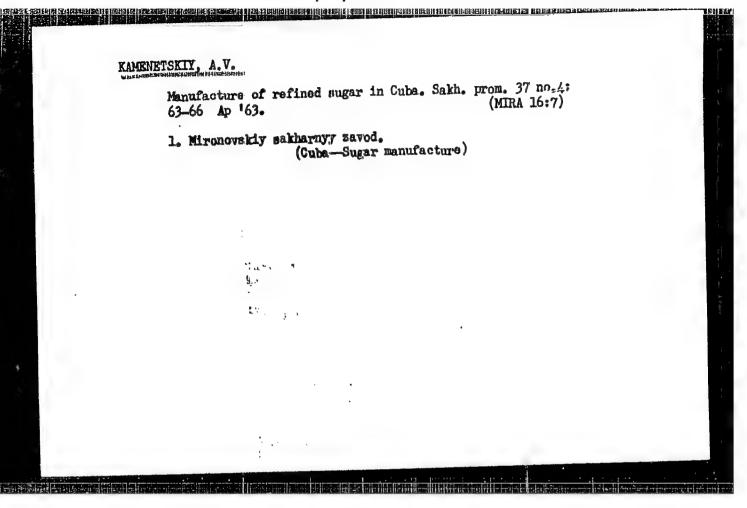
L 2595-66 ACCESSION NR: AP5019197 Algos and MgAlgos; up to 18500; MgO; up to 23000, the above zirconates. Orig. art. has: 1 figure and 3 tables:
<u>从上上上上上,在上面间,从事被理解的支持的。在上,因此是否提供的时候,但这样的人,因此可能是要提供的。</u>
ASSOCIATION: NOTE:
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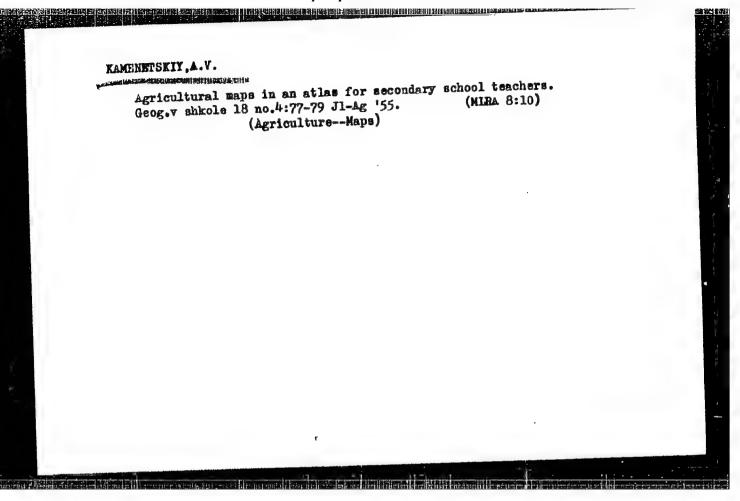






Manufacture of unrefined sugar in Cubs. Sakh. prom. 37 no.3: (88-74 Mr '63. 1. Mironovskiy sakharnyy zavod. (Guba-Sugar manufacture)





KAMERETSKIY, Aleksey Vasil'yevich; SHVETSOV, P.D., prof., retsengent;
SERDYUK, V.K., inshi, red.

[Operation and repair of reciprocating valve steam engines]
Rkspluatatsina i remont klapannykh parovykh mashin, rabetaushchikh na protivodavlenie. Liev, Gos.nauchno-tekhn.isd-votaiushchikh na protivodavlenie. Liev, Gos.nauchno-tekhn.isd-votaiushchikh na protivodavlenie. Niev, Gos.nauchno-tekhn.isd-votaiushchikh na protivodavlenie. Siev, Gos.nauchno-tekhn.isd-votaiushchikh na protivodavlenie. Siev. Gos.nauchno-tekhn.isd-votaiushchikh na protivodavlenie. Sie

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KAMENETSKIY,

Maslakova, N.I. and Kamenetskiy, A.Ye. AUTHOR:

11-10-11/23

TITLE:

New Data on Upper Cretaceous Deposits of the Crimean Steppe (Novyye dannyye o verkhnemelovykh otlozheniyakh stepnogo Kryma)

PERIODICAL:

Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1957,

10, p 97-99 (USSR)

ABSTRACT:

As a result of extensive studies of drill holes, more complete data were obtained on Upper Cretaceous deposits of the western areas of the Crimean steppe. The Upper Cretaceous deposits consist mainly of layers of light greyish marls, limestones and clays, whereby the thickness of the layers varies from 25 to 600 m. Based on studies of small foraminifera, analogy of all strata of the Upper Cretaceous period was determined. The author examined the deposits of various geologic strata, such as the Turonian and Campanian stages, the Santonian substage as well as the Maastricht and Danish deposits. The available data disclose that during the Upper Cretaceous period the examined territory presents an area of uneven accumulation of sediments. The area of the present Tarkhankutskiy peninsula which has a thick, uninterrupted Upper Cretaceous strata experienced a

most intense bending.

Card 1/2

There are 2 references, both Slavic (Russian).

CIA-RDP86-00513R000620230001-7" APPROVED FOR RELEASE: 08/10/2001

New Data on Upper Cretaceous Deposits of the Crimean Steppe

11-10-11/23

ASSOCIATION: Moscow State University imeni M.V. Lomonosov; All-Union Scientific Research Oil Institute, Moscow (Moskovskiy

gosudarstvennyy universitet imeni M.V. Lomonosova, Vsesoyuznyy

neftyanoy nauchno-issledovatel'skiy institut, Moskva)

SUBMITTED:

3 September 1956

AVAILABLE:

Library of Congress

Card 2/2

BURSHTAR, Mikhail Samuilovich: Prinimali uchastiye: ZAKHAROV, Ye.V., geolog; KANKHETSKIY, A.Ye., geolog. KHAIN, V.Ye., prof., doktor geologo-mineral.nauk, red.; DOLMATOV, P.S., vedushchiy red.; FRUMKIN, P.S., tekhn.red.

[Geology, and oil and gas potentials of platform provinces in Ciscaucasis and the Crimea] Geologias i neftegasonosnost' platformennykh oblastei Predkavkas'is i Kryma. Pod red. V.E. Khaina. Leningrad. Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Leningr.otd-nie, 1960. 214 p.

(Crimea--Petroleum geology) (Crimea--Ges, Natural--Geology)
(Caucasus, Northern--Petroleum geology)
(Caucasus, Northern--Gas, Natural--Geology)

Shedreva, O.V.; Kamenerskiy, A.Ye.

Desic characteristics of geological development in the Crises.

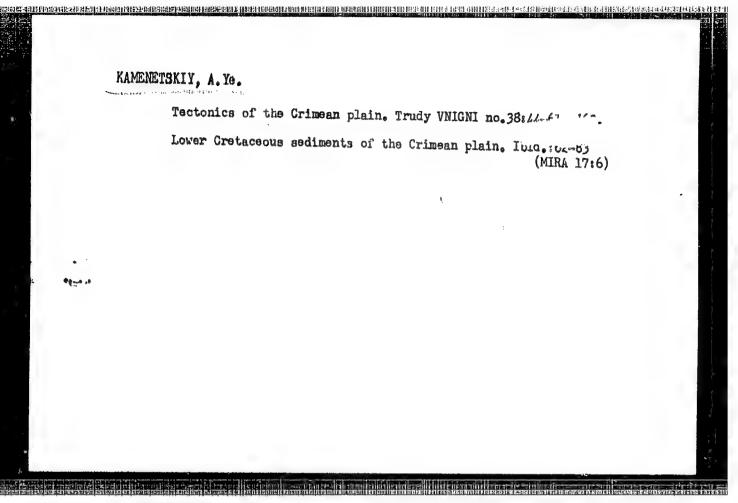
Trudy VHIICHE no. 25:12-30 '65. (HPA 18:12)

BURSHTAR, M.S.; KAMENTISKIY, A.Ye.

New data on the geology and oil and gas potentials of the central and western parts of the Crimean steppes. Sov.geol. 5 no.1: 82-92 Ja 162. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovateliskiy geologorazvedochnyy neftyanoy institut.

(Crimea--Petroleum geology) (Crimea--Gas, Natural-Geology)



BURSHTAN, M.S.; PASSHOV, I.V.; KANEHETSKIY, A.Ye.

Conditions determining the formation of oil and gas pools in the Tarkhankut Peninsula. Geol. nefti i gaza 6 no.6:33-37

Je *62. (NIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel skiy geologoracvodochnyy noftyanoy institut.

(Tarkhankut Peninsula. Petroleum geology)

(Tarkhankut Peninsula. Gas, Natural—Geology)

KAMENETSKIY, Boris Losifovich; KOSHKIN, Ivan Gavrilovich; IVANOV, S.S., red.; GALAKTIONOVA, Ye.N., tekhn.red.

os og a tide. High til til til til stage skale skale skale skale skale til til skale skale til til til til skale til skale ska

[Handbook for project work for course credit in the organization of road construction] Posobie po kursovomu proektirovaniiu organizatsii stroitel'stva dorog. Noskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp, i shosseinykh dorog RSFSR, 1960, 167 p.

(MIRA 14:3)

(Road construction--Study and teaching)

KAMENETSKIY, F. G., Engineer

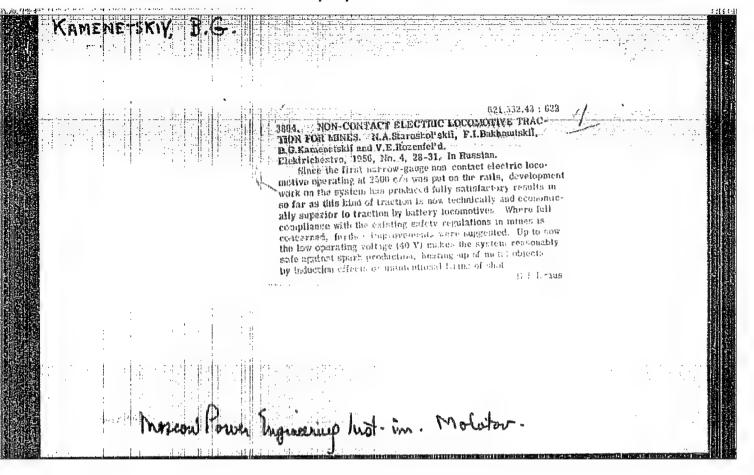
"Investigation of the Elements of Contactless Electric Mine Transport on Direct Current of Increased Frequency." Sub 28 Jun 51, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov

Dissertations presented for science and engineering degrees in Moscow during 1951.

SC: Sum. No. 480, 9 May 55

KRICHKO, Anatoliy Ivanovich; KAMENETSKIY, B.G., redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[Electric traction equipment] Tiagovaia elektroapparatura. Moskva, Gom. energ.izd-vo, 1956. 408 p. (MIRA 9:4) (Electric locomotives)



SHISHKIN, Kirill Aleksandrovich, prof.; GUREVICH, Abram Natanovich, kand.
tekhn, nauk; ETEPANOV, Aleksandr Dmitriyevich, kand. tekhn, nauk;
VASILIYEV, Vladimir Andreyevich, inzh.; SAZOHOV, A.G., inzh., red.;
KAMENETKKII, B.G., kand. tekhn. nauk, red.; KHITROV, P.A., tekhn. red.

[TE 3 diesel locomotive] Teplovom TR 3. Moskva, Gos. transp.zhel.
dor. isd-vo, 1957, 376 p.

(Diesel locomotives)

(Diesel locomotives)

STRPANOV, Aloksandr Dmitriyovich; DIMITRADZE, A.S., doktro tekhn.nauk, prof., rotsenzent; KAMENERIY, B.G., kand.tekhn.nauk, red.; EL'KIMD, V.D., tekhn.red.

[Ways of increasing transmission efficiency in dicel and gasturbine locomotives] Puti povyshenita effektivnosti peredachi teplovozov i gasoturgovozov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1957. 127 p. (MIRA 11:5)

(Locomotives)

KAMEDETSKIY, B.G., kandidat tekhnicheskikh nauk; RADIN, S.Ye., kandidat tekhnicheskikh nauk.

Shortcomings in the automatic control circuit of the TE3 diesel locomotive. Elek. i tepl. tiaga no.4:41-43 Ap '57. (MIRA 10:6) (Diesel locomotives)

STAROSKOL'SKIY, N.A., kand. tekhn. nauk; KAMENETSKIY, B.G., kand. tekhn. nauk Operating conditions of traction substations in contactless electric transportation. Shor.DonUGI no.17:86-91 58. (MIRA 12:5) (Mine railroads) (Electric substations)

STEPANOV, Aleksendr Dmitriyevich; EZRIN, Grigoriy Semenovich; VERKHOGLYAD, Vasiliy Yefremovich; KUZHETSOV, Boris Georgiyevich; TRAKHTMAN, L.M., kand.tekhn.nauk, retsenzent; KAMENETSKIY, B.G., kand.tekhn.nauk, red.; NIKITIN, A.G., red.izd-va; MODEL, B.I., tekhn.red.

[Electric drive of diesel locomotives] Elektricheskaia peredacha teplovozov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 292 p. (MIRA 12:8) (Diesel locomotives) (Electric driving)

SOV/110-59-8-15/24

AUTHOR: Kamenetskiy, B.G., Candidate of Technical Sciences.

TITLE: The Potential-Distribution on the Commutator of a d.c.

Machine with a Multiplex Winding.

PERIODICAL: Vestnik elektropromyshlennosti 1959, Nr 8, pp 63-66 (USSR)

ABSTRACT: Multiplex windings are becoming widely used in large d.c. machines, for example in generators for diesel-electric locomotives which are being built in outputs up to about 3000 kW. In such machines it is most important that the maximum voltage between commutator bars should not be excessive. Multiplex windings should have equalising connections of the second order to equalise the distribution of load between the parallel paths of the winding and also the voltage distribution over the commutator. The second-order equalising connections interconnect points on different parallel branches that should be at the same potential. Little work has been published on the commutator voltage-distribution in machines with multiplex windings of the following types:

(a) multiplex lap windings with equalisers on only one

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SOV/110-59-8-15/24

The Potential-Distribution on the Commutator of a d.c. Machine with a Multiplex Winding.

side of the armature;

(b) multiplex wave windings in which the coil span is greater than the pole pitch, with equalisers located on only one side of the armature

(c) multiplex lap frog-leg windings.

It is usually considered that in case (a) equalisers on one side of the armature serve simultaneously as first-and second-order equalisers. However, careful consideration of the winding diagram shown in Fig 1 shows that in fact the functions of the second-order equaliser are not completely fulfilled in this case. It is stated that there is a displacement between the potential diagrams of neighbouring branches of the winding, due to the toothed construction of the armature and the trapezoidal shape of the magnetic induction curve in the air gap. Accordingly, equaliser connections between commutator bars two pole-pitches apart cannot equalise the potential distribution over the commutator. In case (b) equaliser connections on one side of the armature cannot interconnect parallel branches

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SOV/110-59-8-15/24

The Potential-Distribution on the Commutator of a d.c. Machine with a Multiplex Winding.

connected to adjacent commutator bars; this is explained with reference to Fig 2. Accordingly parallel branches connected to adjacent bars may have displaced potential diagrams, just as in the previous case. Case (c) is considered with reference to Fig 3 and here too there is no direct relationship between the potential on adjacent bars. Thus, in all the above three cases the potential distribution round the commutator may be incorrect. In order to verify these theoretical considerations oscillograms were made of the voltages between bars on an unloaded locomotive generator type MPT99/47 with a frog-leg armature winding based on a duplex lap. Three special contact rings were fitted, each connected to a commutator bar. An oscillogram of the voltage between bars connected to the ends of one section of the lap winding is shown in Fig 4a. The curve corresponds to the curve of magnetic induction in the air gap and there are no pulsations. An oscillogram for two neighbouring bars is shown in Fig 4b and it will be seen that there are high-frequency pulsations with an amplitude

Card 3/4

The Potential-Distribution on the Commutator of a d.c. Machine with a Multiplex Winding.

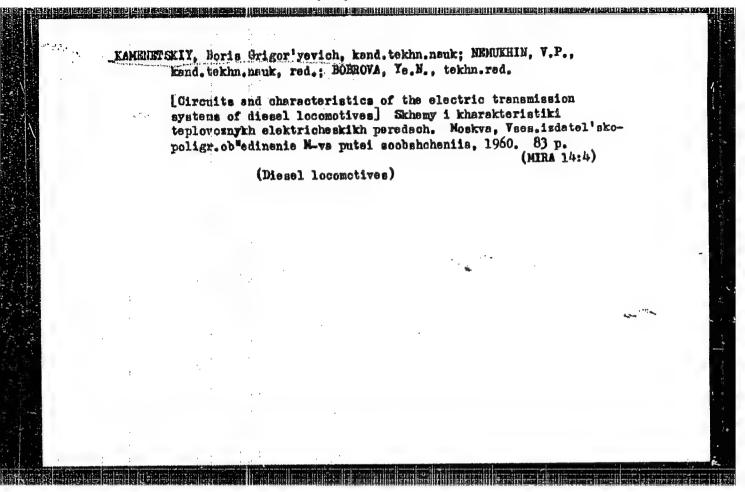
about 20% of the fundamental amplitude. These pulsations may give rise to bad commutation if the voltage between bars reaches 34V even for a very short time It is concluded that in calculating the maximum voltage between bars for machines with windings of the types considered, allowance should be made for the incorrect potential distribution on the commutator. The permissible mean voltages between bars for machines with these types of winding should be 15 to 20% less than the normal standards. There are 4 figures, and 4 Soviet references.

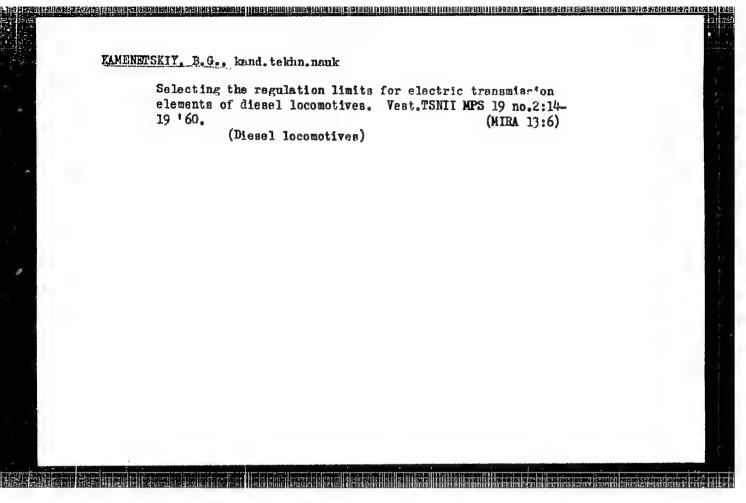
SUBMITTED: January 23, 1959.

Card 4/4

KAMENETSKIY, B.G., kand.tekhn.nauk; GORBATTUK, V.A., inzh.

Improvement in the utilization of the power of TE3 diesel locomotives at high velocities. Elek.i tepl.tiaga 3 no.9: 23-25 S '59. (MIRA 13:2)





EZRIN, Grigoriy Semenovich, inzh.; BUDNITSKIY, Abram Arkad'yevich, inzh.; KAMENETSKIY, B.G., kand. tekhn. nauk, red.; VOROB'YEVA, L.V., tekhn. red.

[Electric circuit of the TE3 diesel locomotive] Elektricheskaia skhema teplovoza TE3. Izd.2. Moskva, Transzheldorizdat, 1962. 57 p. (MIRA 15:6)

(Diesel locomotives)

PLATONOV, Ye.V., kand.tekhn.nauk; NIKUSHIN, A.I., inzh.; KAMENETSKIY, B.G., kand.tekhn.nauk.; FILIPFOV, L.K., inzh.; STEPANOV, A.D., doktor tekhn.nauk, retsenzent; PETUSHKOVA, I.K., inzh., red.; BOBROVA, Ye.N., tekhn.red.

ET 11 F DE GRAS EMALOMBRA 2008, SOM MORTH OBSTREAM AND FOLD A COLUMN TO A FEB.

[Results of the studies of electric power transmission systems on diesel locasiotives] Rezultaty issledovanita elektricheskikh peredach teplovozov. Moskvá, Vses.izd-vo poligr. obudeinenie M-va putei soob., 1961. 120 p. (Moscow. Vsesoiyznyi nauchnoissledovatel skii institut zheleznodorozhnogo transporta. Trudy, no.213)

(Diesel locomotives)

KAMENETSKIT, B.G., kand.tekhn.nauk (Moskva)

Parameters of limited use of d.c. traction motors. Elektrichestvo (MIRA 16:9)

no.7:56-60 Jl '63. (Electric railway motors)

STEPANOV, A.D.; KAMENETSKIY, B.G., kand. tekhn. nauk, retsenzent; GALANOVA, M.S., inzh., red.

[Automatic power control for diesel and gas-turbine locomotives] Avtomaticheskoe regulirovanie moshchnosti v teplovozakh i gazoturbovozakh. Moskva, Izd-vo "Mashinostroenie," 1964. 298 p. (MIRA 17:7)

再建设施设备建筑设置,从线用的设理运输的现代的,外线的现代的变换时,机构设计的股份的变换的,在现代的股份的工程,但是有一个工程,不是一个工程,但是一个工程的,是

KAMENETSKIY, B.I.

Experience in the treatment of spinal impotence with novocaine in association with stimulating substances. Urologiia 28 no.58 65-67 S-0'63 (MIRA 1784)

1. Is Gorodskogo kozhno-venerologicheskogo dispansera, Riga.

KAMENETSKIY, B.L., inzh.; SOKOLIN, Sh.L., inzh.

Control of pump delivery. Mekh. i avtom. proizv. 17 no.8:
9-11 Ag '63.

(MIRA 16:10)

KAPLAN, S.A., doktor fiz.-mat. nauk, red.; KIRKO, I.M., doktor fiz.mat. nauk, red.; STANYUKOVICH, K.P., doktor fiz.-mat. nauk,
red.; SHIROHOV, M.F., doktor fiz.-mat. nauk, red.; FRANKKAMENETSKIY, D.A., doktor fiz.-mat. nauk, red.; VENGRAHOVICH, A.,
red.; LEMBERG, A., tekhn. red.

[Problems of magnetohydrodynamics and plasma dynamics; reports]
Voprosy magnitnoi gidrodinamiki i dinamiki plazmy; doklady. Riga,
Izd-vo Akad. nauk Latviiskoi SSR. Vol.2. 1962. 660 p.

(MIRA 15:12)

1. Soveshchaniye po teoreticheskoy i prikladnoy magnitnoy gidrodinamike. 2d, Riga, 1960. (Magnetohydrodynamics) (Plasma (Ionized gases))

43

AUTHOR:

Kamenetskiy, F.M., Kaufman, A.A., and Yakubovskiy, Yu.V.

TITLE:

On the selection of optimum frequencies in induction methods of electric prospecting. (O vybore optimal'noy chastoty pri induktivnykh metodakh elektrorazvedki).

PERIODICAL:

Izvestiya Akademii Nauk, Seriya Geofizicheskaya, 1957, No.2, pp. 200 - 210. (U.S.S.R.)

ABSTRACT:

Investigation of the frequency behavior mechanism in an a.c. magnetic field in the presence of conductors of simple geometric configuration, such as, a sphere, a cylinder and a disc. The problem is solved through theoretical calculation and model tests. Since the complex resistance of a three dimensional conductor inside a magnetic field is dependent on frequency the amplitude of the anomalous field in the case of increase in the frequency approaches asymptotically its maximum value; the phase anomaly increases at first with increasing frequency and then drops to zero.

Card 1/3

TITLE:

On the selection of optimum frequencies in induction methods of electric prospecting. (O vybore optimal'noy chastoty pri induktivnykh metodakh elektrorazvedki).

43

In studying objects with a given specific resistance, dimensions and depths of location, it is always possible. to select an optimum frequency at which the amplitude and phase anomalies caused by the studied object will be highest; an increase in the frequency above the optimum may lead to a slight increase in the amplitude anomaly, but the phase anomaly will be smaller. Preliminary calculations indicate that for real conditions the optimum frequencies will change from a few dozen to a few thousand c.p.s. for most highly conductive ores. It is necessary to investigate the possibility of selecting frequencies at which the ratio of amplitude and phase anomalies caused by the conductor deposit at a depth will differ from the ratio of the amplitude and phase anomalies produced by conductors at the surface.

Card 2/3

43

TITLE:

On the selection of optimum frequencies in induction methods of electric prospecting. (O vybore optimal'noy chastoty pri induktivnykh metodakh elektrorazvedki).

是来这个民族政党主题的发展是这种民族主义。 第一章

Thus it would be possible to separate anomalies which are located at great depths and are of greatest interest from the geological point of view from numerous other anomalies. The text includes 10 graphs, 2 diagrams, 1 table and about 2 pages of equations.

There are 7 references of which 5 are Slavic

ASSOCIATION: Moscow Geological Survey Institute. (Moskovskiy

geologo-pazvedochnyy institut)

PRESENTED BY:

SUBMITTED: 4/10/56

AVAILABLE: Library of Congress

Card 3/3

KAMENETSKIY, F. M., Candidate of Toch Sci (diss) -- "The development of lowfrequency inductive methods of electrical prospecting for one deposite, as applied
to the physico-geological conditions of the Caucasus Mountains". Moscow, 1959.

15 pp (Min Higher Educ USSR, Moscow Geological-Prospecting Inst im S. Ordzhonikidze),
110 copies (KL, No 20, 1959, 112)

KAMENETSKIY, F.M.; KOVALENKO, V.F.; YAKUBOVSKIY, Yu. V.

に異々体を使わる利用を表現無利用を連携します。 (1914年) 1915年 - 19

Two-frequency induction electric logging. Izv. vys. ucheb. zav.; geol. i razv.; 2 no.7:99-107 J1 '59 (MIRA 13:3)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze. (Electric prospecting)

KAMENETSKIY, F.M.; KAUFMAN, A.A.; YAKUBOVSKIY, Yu.V.

Inductive methods in electric prospecting for ores. Trudy MCRI
(MIRA 15:5)

(Electromagnetic prospecting)

KAMENETSKIY, F.M.; KOVALENKO, V.F.

Evaluation of the duration of primary field impulses during excitation of nonstationary eddy currents in prospecting for highly conductive ores. Izv. vys. ucheb. zav.; geol. i razv. 3 no.6:92-94 Je '60. (MIRA 14:7)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze. (Electric prospecting) (Ore deposits)

BEZRUK, I.A.; KAMBHETSKIY, P.M.

Interpretation of data on multifrequency induction prospecting in regions of blanket sediments of low resistance. Izv. vys. ucheb. zav.; geol, i razved. 3 no. 10:93-101 0 *60. (MIRA 13:12)

1. Hoskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze. (Blectric prospecting)

S/169/62/000/007/074/149 D228/D307

AUTHORS:

Kamenetskiy, F. M. and Kovalenko, V. F.

TITLE:

Quick-acting contactor to an electric prospecting station for operations by the method of transients

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 7, 1962, 33, abstract 7A216 (V sb. Razved. i promysl. geofiz., no.

42, M., 1961, 48-54)

TEXT: The rate of breaking the current in the loop is of great significance in investigations of ore deposits by the method of field formation. The authors suggest that the electromechanical switch controlled by the relay unit should be modernized in order to increase the contactor's operating rate when the currents are high (50 amperes). The modernized switch's main features are the increased track over which the movable contacts run and the elimination of the antagonistic clamp springs. The suggested device accelerates the process of breaking the current in the circuit by times. / Abstracter's note: Complete translation. /

Card 1/1

S/169/63/000/001/057/062 D218/D307

AUTHORS:

Kamenetskiy, F.M. and Kovalenko, V.C.

TITLE:

Nonsteady eddy currents in conducting covering

deposits

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 1, 1963, 30, abstract 10167 (Izv. vyssh. uchebn. zavedeniy. Geol.

i razvedka, 1962, no. 4, 105-112)

In order to estimate the effect of conducting covering deposits on the results of electrical logging involving the observation of transients (a modification of inductive electrical logging), an analysis was made of eddy currents induced in an infinite plate by a loop and an infinitely long cable. A theoretical calculation was completed and experiments were carried out on models. It was found that 5-6 msec after a step change in the primary field, the magnetic field due to the eddy currents reached ~ 1% of its maximum value, i.e. practically disappeared. _Abstracter's note: Complete translation_

Card 1/1

S/169/63/000/002/114/127 D263/D307

AUTHORS:

Kamenetskiy, P. M., Kovalenko, V. F.

TIPLE:

Some results of testing of the transient processes

method (TPM)

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 2, 1963, 31, abstract 2D185 (Razvedka i okhrana nedr, 1962, no. 7,

35-38)

TEXT: A brief characteristic of the TPM is given, together with a description of its dvantages over other electric prospecting methods in the tearch for well conducting ores. The main advantages of TPM are (1) recording of only the anomalous component of the field, (2) possibility of conducting the work in regions where the covering layers are thick and well conducting, (3) closer relationship between anomalous effects connected with well conducting ore deposits and caused by nonuniformities in covering layers and the surrounding rocks. It is shown that the possibilities of TPM w.r.t.

Some results of testing ...

3/169/63/000/002/114/127 D263/D307

resolution of aromal es caused by good and bad conductors are theoretically unlimited in practice the method is limited by sensitivity of the recording apparatus, since fairly high ratios are reached at later times of the transient process, when the anomalous effects are negligible. Results are quoted of a trial of the method on one of the pyritic deposits of South Ural. The studied lenticular deposit was at a depth of 50 - 70 m, was ~250 m across and, on the average, ~12 m thick. The surrounding rocks were effusive quartzic keratophyres and their tufas. Field measurements were made with a model of the instrument. developed at MGRI. which allowed

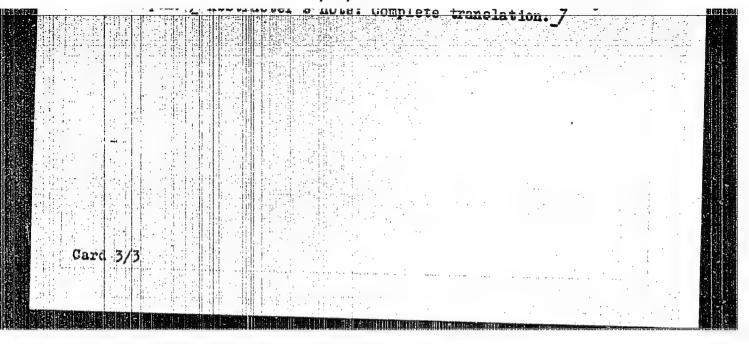
Card 2/3

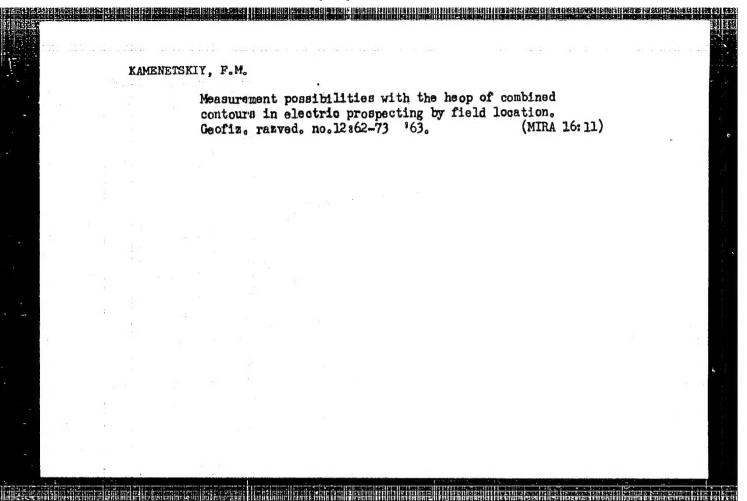
Some results of testing ... S/169/63/000/002/114/127

D263/D307

rocks, and increases the depth to which the search is made. The example shows also the necessity of recording the earlier stages

of the process in the case of recording the earlier stages





KAMENETSKIY, F.M.; KOVALENKO, V.F.

High-speed contactor for an electric prospecting station, performing according to the method of transient processes. Razved. i prom. geofiz. no.42:48-54 61. (MIRA 16:11)

KAMENETSKIY, F.M.; KOVALENKO, V.F.

Suppressing the noise of a commercial frequency when recording nonstationary electromagnetic fields. Razved. i prom. geofiz. no.51:102-106 '64. (MTRA 17:11)

ACC NR: AT6020472

(A)

SOURCE CODE: UR/0000/65/000/000/0059/0068

AUTHOR: Kamenetskiy, F. M. (Moscow); Timofeyev, V. M. (Moscow)

ORG: none

TITLE: The effect of the shape of the excitation pulse on the results observed in prospecting for highly conductive ores by the field stabilization method

SOURCE: AN UkrSSR. Teoriya i elementy sistem otbora geofizicheskoy informatsii (Theory and elements of systems for selecting geophysical information). Kiev, Naukova dumka, 1965, 59-68

TOPIC TAGS: prospecting, pulse shape, pulse duration modulation

ABSTRACT: The authors describe the effect of signal duration and shape upon the resolution quality of this method. Such seemingly instantaneous changes of the field as are caused, e.g., by switching the current off and on are actually long enough to permit the development of a complex series of events. The authors conclude that to eliminate the transient process due to switching the current off, the signal should be much shorter in duration—not over 0.4-0.6 msec. In addition, the contact transmitting—the pulse should be rectangular and it should fit a #2 size opening. Orig. art. has: 34 formulas.

SUB CODE: 08/

SUBM DATE: 10Nov65/

ORIG REF: 001/ .

OTH REF: 002

Card 1/1